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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,332	01/25/2002	Yoav Kotser	6727/1K235US1	1518

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EXAMINER	
SERRAO, RANODHI N	
ART UNIT	PAPER NUMBER
2141	

DATE MAILED: 01/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/057,332	KOTSER, YOAV	
	Examiner	Art Unit	
	Ranodhi Serrao	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *27-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *27-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 14 December 2005 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 27-45 have been considered but are moot in view of the new ground(s) of rejection.

3. The applicant argued in substance the newly added claims 27-45. The new grounds teach these added features. See rejections below.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 27-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rekhter et al. (6,339,595) and Gai et al. (6,032,194).

6. As per claim 27, Rekhter et al. teaches a method for communication, comprising: defining a topology of a transparent local area network service (TLS) (see Rekhter et

al., col. 2, lines 8-19 and col. 6, lines 17-25), comprising a system of label-switched tunnels between label-switched routers (LSRs) through a communication network (see Rekhter et al., col. 41, lines 27-34), the TLS having at least first and second endpoints to which first and second user equipment is connected so that the TLS acts as a virtual bridge between the first and second user equipment (see Rekhter et al., col. 6, lines 17-25); transmitting control frames among the LSRS in the TLS via the label-switched tunnels (see Rekhter et al., col. 41, lines 41-60). But fails to teach each control frame comprising a control traffic label and a bridge protocol data unit (BPDU) in accordance with a spanning tree protocol (STP), the control traffic label indicating to the LSRS that the STP is to be executed by the LSRS without transmission of the BPDU to the user equipment; and upon receiving the control frames at the LSRS, processing the BPDU, responsively to the control traffic label, so as to remove loops in the topology of the TLS irrespective of the user equipment. However, Gai et al. teaches each control frame comprising a control traffic label and a bridge protocol data unit (BPDU) in accordance with a spanning tree protocol (STP) (see Gai et al., col. 10, lines 1-12), the control traffic label indicating to the LSRS that the STP is to be executed by the LSRS without transmission of the BPDU to the user equipment (see Gai et al., col. 3, lines 1-16); and upon receiving the control frames at the LSRS, processing the BPDU, responsively to the control traffic label, so as to remove loops in the topology of the TLS irrespective of the user equipment (see Gai et al., col. 4, lines 15-51). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Rekhter et al. to each control frame comprising a control traffic label and a bridge protocol data unit

(BPDU) in accordance with a spanning tree protocol (STP), the control traffic label indicating to the LSRS that the STP is to be executed by the LSRS without transmission of the BPDU to the user equipment; and upon receiving the control frames at the LSRS, processing the BPDU, responsively to the control traffic label, so as to remove loops in the topology of the TLS irrespective of the user equipment in order to rapidly reconfigure a computer network following a network change (see Gai et al., col. 1, lines 14-17).

7. As per claims 36 and 45, Rekhter et al. teaches a communication device for operation as one of a plurality of label-switched routers (LSRs) in a transparent local area network service (TLS), which includes a system of label-switched tunnels between the label-switched routers (LSRs) through a communication network, the TLS having at least first and second endpoints to which first and second user equipment is connected so that the TLS acts as a virtual bridge between the first and second user equipment, the device comprising: one or more ports, adapted to send and receive traffic via the label-switched tunnels (see Rekhter et al., col. 46, lines 15-20); and a traffic processor which is coupled to the one or more ports, and is adapted to transmit control frames to the LSRS ill the TLS via the label-switched tunnels (see Rekhter et al., col. 41, lines 41-60). But fails to teach each control frame comprising a control traffic label and a bridge protocol data unit (BPDU) in accordance with a spanning tree protocol (STP), the control traffic label indicating to the LSRS that the STP is to be executed by the LSRS without transmission of the BPDU to the user equipment, wherein the traffic processor is further adapted, upon receiving the control frames, to process the BPDU, responsively to the control traffic label, so as to remove loops in a topology of the TLS irrespective of

the user equipment. However, Gai et al. teaches each control frame comprising a control traffic label and a bridge protocol data unit (BPDU) in accordance with a spanning tree protocol (STP) (see Gai et al., col. 10, lines 1-12), the control traffic label indicating to the LSRS that the STP is to be executed by the LSRS without transmission of the BPDU to the user equipment (see Gai et al., col. 3, lines 1-16), wherein the traffic processor is further adapted, upon receiving the control frames, to process the BPDU, responsively to the control traffic label, so as to remove loops in a topology of the TLS irrespective of the user equipment (see Gai et al., col. 4, lines 54-65). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Rekhter et al. to each control frame comprising a control traffic label and a bridge protocol data unit (BPDU) in accordance with a spanning tree protocol (STP), the control traffic label indicating to the LSRS that the STP is to be executed by the LSRS without transmission of the BPDU to the user equipment, wherein the traffic processor is further adapted, upon receiving the control frames, to process the BPDU, responsively to the control traffic label, so as to remove loops in a topology of the TLS irrespective of the user equipment in order to rapidly reconfigure a computer network following a network change (see Gai et al., col. 1, lines 14-17).

8. As per claims 28 and 37, Rekhter et al. and Gai et al. teach a method, wherein the label-switched tunnels comprise multiprotocol label switching (MPLS) tunnels (see Rekhter et al., col. 41, lines 28-34).

9. As per claims 29 and 38, Rekhter et al. and Gai et al. teach the mentioned limitations of claims 27 and 36 above, furthermore Rekhter et al. teaches a method,

wherein transmitting the control frames comprises pushing the control traffic label onto the control frames at a sending LSR (see Rekhter et al., col. 39, lines 21-26), the control traffic label containing an agreed-upon value indicating that the control frame belongs to the STP (see Rekhter et al., col. 10, lines 18-33), and popping the control traffic label off the control frames at a receiving LSR (col. 10, lines 40-62). But fails to teach processing the BPDU. However, Gai et al. teaches processing the BPDU (see Gai et al., col. 10, lines 13-25). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Rekhter et al. to processing the BPDU in order to allow switches to calculate a spanning tree or active topology, which is a subset of the network that is loop-free (i.e., a tree) and yet connects every pair of LANs within the network (i.e., the tree is spanning) (see Gai et al., col. 2, lines 30-41).

10. As per claims 30 and 39, Rekhter et al. and Gai et al. teach a method, wherein processing the BPDU comprises setting a transmitting state for each of the label-switched tunnels (see Rekhter et al., col. 42, lines 10-17).

11. As per claims 31 and 40, Rekhter et al. and Gai et al. teach the mentioned limitations of claims 27, 30, 36, and 39 above, but Rekhter et al. fails to teach a method, wherein for at least one of the label-switched tunnels, the transmitting state is set to a blocking state so as to prevent frames from being sent across the at least one of the label-switched tunnels, in order to eliminate a loop in the TLS. However, Gai et al. teaches a method, wherein for at least one of the label-switched tunnels, the transmitting state is set to a blocking state so as to prevent frames from being sent across the at least one of the label-switched tunnels, in order to eliminate a loop in the

TLS (see Gai et al., col. 14, lines 25-51). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Rekhter et al. to a method, wherein for at least one of the label-switched tunnels, the transmitting state is set to a blocking state so as to prevent frames from being sent across the at least one of the label-switched tunnels, in order to eliminate a loop in the TLS and are designated as back-up ports (see Gai et al., abstract).

12. As per claims 32 and 41, Rekhter et al. and Gai et al. teach a method, wherein transmitting the control frames comprises sending the control frames through the label-switched tunnels that are used for carrying user data in the TLS (see Rekhter et al., col. 22, lines 50-61).

13. As per claims 33 and 42, Rekhter et al. and Gai et al. teach the mentioned limitations of claims 27 and 36 above, furthermore Rekhter et al. teaches a method, wherein the TLS is one of a plurality of transparent local-area network services (TLSs) operative in the communication network (see Rekhter et al., col. 1, line 58-col. 2, line 7), and wherein transmitting the control frames comprises inserting information in the control frames that identifies the TLS among the plurality of TLSs (see Rekhter et al., col. 38, lines 6-12), and eliminating the loops only from the TLS identified by the control frames (see Rekhter et al., col. 24, lines 51-57). But fails to teach processing the BPDU. However, Gai et al. teaches processing the BPDU (see Gai et al., col. 10, lines 13-25). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Rekhter et al. to processing the BPDU in order to allow switches to calculate a spanning tree or active topology, which is a subset of the network that is

loop-free (i.e., a tree) and yet connects every pair of LANs within the network (i.e., the tree is spanning) (see Gai et al., col. 2, lines 30-41).

14. As per claims 34 and 43, Rekhter et al. and Gai et al. teach a method wherein inserting the information in the control frames comprises pushing a channel label onto the control frames, in addition to the control traffic label, so as to identify the TLS (see Rekhter et al., col. 19, line 52-col. 20, line 3).

15. As per claims 35 and 44, Rekhter et al. and Gai et al. teach a method, wherein inserting the information in the control frames comprises adding the information that identifies the TLS to the control traffic label (see Rekhter et al., col. 19, line 52-col. 20, line 3).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ranodhi Serrao whose telephone number is (571)272-7967. The examiner can normally be reached on 8:00-4:30pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571)272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RUPAL DHADIA
SUPERVISORY PATENT EXAMINER